

250 smutted stalks in 1250, or 20 per cent. These observations were made in order to compare the results with those obtained from the third field, where 140 stalks showed 38 to be smutted, or 27 per cent. This field was an experimental plat in which a number of crossed varieties were being self-pollinated. The tassels to be used for this purpose were enclosed in sacks, but the remainder were pulled out when young. At the time the pollinating was begun, several ears were beginning to silk. These were cut off with a corn knife. In some cases the entire ear was cut off; in others it was cut above the base. After a period the ears were allowed to grow as they appeared. In this last plat 117 stalks had ears upon them of which 10 had been cut. Of the 10 cut ears 9 were smutted, or 90 per cent.; of the 107 uncut ears 5 were smutted, or 4.7 per cent. The cut ears were growing at the time of mutilation. These observations serve to show that corn smut is greatly increased by mutilation which exposes the growing issue.—A. S. HITCHCOCK, *Manhattan, Kan.*

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### A BOTANICAL ART GALLERY

DURING the past season the University of Minnesota has taken steps to found a photographic exhibit of the vegetation of the state, and several hundred dollars have been expended for experimental work. The results are so far gratifying that the writer feels justified in giving the outlines of the plan for the benefit of other institutions that may care to develop similar exhibits.

Considerable time was spent during the summer in securing negatives of vegetation. A photographer has been continuously employed, and about 300  $8 \times 10$  negatives have been obtained. For the present the efforts have been limited to (a) plant portraits in their habitats and (b) ecologic groups. Many of these have been enlarged and framed. A commodious and well-lighted room has been chosen for the hanging, and at present twenty enlargements,  $30 \times 40$ , and several of smaller size, have been hung as the nucleus of the gallery. The pictures are numbered and framed in the ordinary manner, and promise to have much educational value, not only to undergraduates, but to the public generally.

I find that a picture  $30 \times 40$  can be produced, properly framed and hung, at a minimum expense of about \$17. Higher prices are, however, demanded for the best work in framing. It is important to

command the services of very expert photographers and skillful enlargers to obtain proper results. A good negative can be produced at an average price of \$2.50. Enlargement costs about \$6, and the frame cannot be secured for less than \$8.50. This price is trifling when the beauty and value of the whole exhibit is taken into account.

Among the subjects of study that I have used might be named portraits of *Verbascum*, *Euphorbia*, *Helianthus*, *Solidago*, *Laciniaria*, *Castalia*, *Pteris*, *Quercus*, *Cuscuta*, *Pyrola*, and groups of shore-lines, shade-plants, mat-plants, wand-plants, forest-floor coverings, swamp vegetation, etc. Such an exhibit when fairly extended would give a very adequate and pleasing idea of the vegetation in the region that has been selected for analysis.—CONWAY MACMILLAN, *The University of Minnesota*.

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#### A NEW LILIUM.

**Lilium Masseyi**, n. sp.—Bulb 12<sup>mm</sup> in diameter or less, composed of fleshy scales: stem 1.5 to 3<sup>dm</sup> high, with two distant scales below: leaves linear, acute at both ends or the lower obtuse, 12 to 25<sup>mm</sup> long, 2 to 4<sup>mm</sup> wide, in whorls of 3 to 8, the central ones generally alternate, glaucous, the margins revolute, prominently three-veined: flowers 1 to 3, erect, 2.5 to 5<sup>cm</sup> high; perianth reddish-orange, its segments spatulate, obtuse, slightly pubescent, the blade 6 to 12<sup>mm</sup> wide, gradually narrowed into the claw, purple spotted below: capsule obovoid, 12 to 25<sup>mm</sup> high.

High mountain meadows of North Carolina, July–August. Named in honor of Professor W. F. Massey, Horticulturist N. C. Agr. Exp. Station.—C. W. HYAMS, *Agric. Exper. Station, West Raleigh, N. C.*